DART System Status Report: October 2001

- Surface moorings at DART stations D171, D165, and D157 in the North Pacific were recovered from NOAA ship RON BROWN. Replacement surface moorings were deployed at the time of each respective recovery. In addition, the bottom package at site D157 was replaced while on station.

- A 6-buoy network was completed in summer 2001 with the deployments of D128 from NOAA ship RON BROWN off the U.S. West Coast, and D125 from NOAA ship KAIMIMOANA in the Equatorial Pacific. Current data return from all sites is near 100%.

- Options for reducing the load on the primary DART web server due to overwhelming web requests during an emergency have been examined. Mirroring of the DART web site at a remote NOAA facility and implementing a caching reverse-proxy known as Squid to distribute load is recommended to reduce the vulnerability of the DART web site during times of excessive activity.

- Poster presentations were made at ITS2001 in August 2001. The 'Acquisition and Quality Assurance of DART Data' was presented to show overall system operation and the path of DART data. 'System Development and Performance of the Deep-Ocean Assessment and Reporting of Tsunamis (DART) System form 1997-2001' showed the chronological progression of the DART system's development and performance.

- Planning for the transfer of operational responsibility and the continued engineering support for the DART array from PMEL to NDBC (National Data Buoy Center) is underway. Two video conferences were held during the months of September and October to identify scope, strategy, and an implementation time line. During the month of October, personnel from NDBC (Bernard, O'Neil, and Teng) visited PMEL for a 2 day meeting, and PMEL Engineering personnel (Milburn, Meinig, and Stalin) visited the NDBC facility in Mississippi. These reciprocal visits serve to identify specific details involved with the transfer and integration into NDBC's operation. A one-page scoping plan with budget was generated and expected impacts of this transfer are:

    - IMPROVE WARNINGS - NDBC will maintain the DART array and provide the necessary 24/7 support for the warning centers. This level of support is inappropriate for a research laboratory.

    - INFUSE TECHNOLOGY - this action will transfer a prototype system from a research laboratory to an operational center, enhancing public safety.

- INCREASE EFFICIENCY - NDBC can assimilate the DART array into its operations and gain efficiencies by consolidating platforms, ships, and technicians.